

Title (en)

SMART BATTERY DEVICE AND OPERATING METHOD THEREOF

Title (de)

INTELLIGENTE BATTERIEVORRICHTUNG UND VERFAHREN ZU DEREN BETRIEB

Title (fr)

DISPOSITIF DE BATTERIE INTELLIGENT ET SON PROCÉDÉ DE FONCTIONNEMENT

Publication

EP 3972075 A1 20220323 (EN)

Application

EP 21153131 A 20210125

Priority

TW 109132210 A 20200918

Abstract (en)

A smart battery device is provided. The smart battery device is applied to an electronic device. The smart battery device provides power for the electronic device. The smart battery device includes a battery pack, a sensing resistor, and a main management chip. The sensing resistor is configured to sense the charging and discharging of the smart battery device. The main management chip is connected to the battery pack, the sensing resistor, and the electronic device. The main management chip is configured to manage the charging and discharging of the smart battery device. When the electronic device is not turned on, if the main management chip detects a leakage event in the electronic device through the sensing resistor, the main management chip will enable the smart battery device to enter a temporary failure state, which will stop the smart battery device from discharging.

IPC 8 full level

H02J 7/00 (2006.01)

CPC (source: CN EP KR US)

H01M 10/4235 (2013.01 - US); **H01M 10/4257** (2013.01 - US); **H01M 10/44** (2013.01 - KR); **H02J 7/00034** (2020.01 - EP); **H02J 7/00036** (2020.01 - CN); **H02J 7/00038** (2020.01 - KR); **H02J 7/0029** (2013.01 - CN KR); **H02J 7/0031** (2013.01 - EP); **H02J 7/0047** (2013.01 - CN EP KR); **H02J 7/0071** (2020.01 - CN); **H02J 7/00712** (2020.01 - CN KR US); **H02J 7/04** (2013.01 - KR); **H01M 2010/4271** (2013.01 - US); **Y02E 60/10** (2013.01 - EP); **Y10S 320/21** (2013.01 - KR)

Citation (search report)

- [I] WO 2009042650 A1 20090402 - SMART ENERGY SOLUTIONS INC [US], et al
- [A] US 2010194348 A1 20100805 - WANG LIGONG [US], et al
- [A] US 2012326502 A1 20121227 - NGUYEN HAP [US], et al
- [A] US 2003193318 A1 20031016 - OZAWA HIDEKIYO [JP], et al

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3972075 A1 20220323; CN 114204616 A 20220318; CN 114204616 B 20240507; JP 2022051491 A 20220331; JP 7138206 B2 20220915; KR 102539913 B1 20230602; KR 20220037924 A 20220325; TW 202213897 A 20220401; TW I745087 B 20211101; US 2022093977 A1 20220324

DOCDB simple family (application)

EP 21153131 A 20210125; CN 202011038168 A 20200928; JP 2021031817 A 20210301; KR 20210009428 A 20210122; TW 109132210 A 20200918; US 202017135648 A 20201228